

REMARKS

Applicants have the following response to the Examiner's objections and rejections in the Office Action.

Election

In the Office Action, the Examiner states that Claims 31-48, 80-83, 92-95, 106 and 107 are directed to a non-elected invention and is requiring that these claims be canceled. While Applicants do not necessarily agree with the Examiner's position, in order to advance the prosecution of this application, Applicants are canceling these claims without prejudice or disclaimer. Therefore, it is respectfully requested that this objection be withdrawn.

Double Patenting

The Examiner has the following rejections under the judicially created doctrine of obviousness-type double patenting:

- A. Claims 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 49, 51, 53 and 55-74 are rejected as being unpatentable over claims of U.S. 6,753,854 (Koyama et al. '854).
- B. Claims 75-79, 84-91, 96-105 are rejected as being unpatentable over claims of U.S. 6,590,581 (Koyama et al. '581) in view of claims of Koyama et al. '854.
- C. Claims 1, 3, 5, 7, 9, 11, 163, 15, 17, 19, 21, 23, 25, 27, 29, 49, 51, 53 and 55-74 are rejected as being unpatentable over claim 1 of Koyama '854 in view of Nakai et al.
- D. Claims 55, 56, 62, 68 and 72 are rejected as being unpatentable over claim 1 of Koyama et al. '854 in view of Sharp et al. (US 6,049,367).

Each of these rejections is respectfully traversed.

With regard to Rejections A and C above, independent Claim 1, for example, recites:

“conducting voltage gray scale and time ratio gray scale at the same time by using n bit out of m bit digital data as information for voltage gray scale, and (m-n) bit as information for time ratio gray scale, wherein m and n are positive numbers equal to or greater than 2 and satisfy $m > n$.”

It is respectfully submitted that neither of the cited references claim this entire feature.

Hence, there is no double patenting. For similar reasons, there is no double patenting for the other rejected independent claims.

With regard to Rejection B above, it is respectfully submitted that the ‘581 rejection does not claim:

“wherein the source driver has a circuit converting the digital video data to an analog video data,” as recited in independent Claim 75 of the present application; or

“a circuit converting a first analog video data to a first digital video data; a circuit converting the first digital video data into a second digital video data for a gradation display using voltage gray scale and time ratio gray scale; and a circuit converting the second digital video data to a second analog video data,” as recited in independent Claims 77 and 99 of the present application; or

“wherein the source driver converts the second digital video data to an analog video data,” as recited in independent Claim 98 of the present application.

Hence, there is no double patenting by any of these rejected independent claims.

With regard to Rejection D above, independent Claim 55 recites:

“wherein a m bit digital video data inputted to the digital video data time ratio gray scale processing circuit is converted into an n bit digital video data for voltage gray scale while (m - n) bit data of the m bit digital video data is used for time ratio gray scale.”

It is respectfully submitted that neither of the cited references claim this entire feature.

Hence, there is no double patenting.

Accordingly, for at least the above-stated reasons, there is no double patenting of the independent claims or those claims dependent thereon. Therefore, it is respectfully requested that these rejections be withdrawn.

Erroneous 1449 Form

Attached to the Office Action was an initialed 1449 form for application 09/342,236. This form is for another patent application and mistakenly attached to the office action in the present application. Accordingly, it is respectfully requested that this form be removed from this application file and returned to its rightful application file.

Conclusion

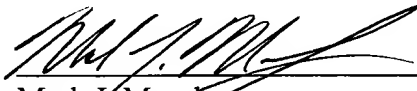
Applicants respectfully submit that the present application is in a condition for allowance and should be allowed.

If any further fee is due for this amendment, please charge our deposit account 50/1039.

Favorable reconsideration is earnestly solicited.

Respectfully submitted,

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Mark J. Murphy
Registration No. 34,225

COOK, ALEX, McFARRON, MANZO,
CUMMINGS & MEHLER, LTD.
200 West Adams Street; Suite 2850
Chicago, Illinois 60606
(312) 236-8500

Customer no. 000026568